#### APPENDIX A

#### DEPOT MAINTENANCE CAPITAL INVESTMENTS

This appendix provides data reflecting Service and Defense Logistics Agency (DLA) levels of depot maintenance capital investment in the organic depots and shipyards. Data for this appendix was provided by the Services and DLA and covers the period FY96 through FY99. The data are divided into two categories of funding sources. The first category includes capital investments whose funding sources are Military Construction (MILCON), Base Closure and Realignment (BRAC), or the Capital Purchases Program (CPP). The second category includes capital investments whose funding sources are from Operations and Maintenance (O&M) appropriations, procurement appropriations, other Services/SYSCOMS, or other. Both categories are subdivided into areas to characterize the type of capital investment. The first category includes the areas of major construction, minor construction, Automated Data Processing Equipment (ADPE), software, equipment, and environment. The second category includes minor construction, ADPE, software, equipment, and environment.

Gathering data for the capital investments made from O&M appropriations, procurement appropriations, etc., category proved problematic for some Services and SYSCOMs. This is the case because such investments, and corresponding data, are not centrally managed. Therefore, the data that has been provided may not be complete.

The Services, DLA and SYSCOM data incorporate information regarding the level of capital investments being made for systems developed by the Joint Logistics Systems Center (JLSC) that are being transitioned to the Services.

Table A-1
Joint Service Depot Maintenance Capital Investments
(\$ in Millions)

	<u>FY96</u>	FY97	FY98	<u>FY99</u>
Major Construction	38.800	22.518	10.202	82.320
Minor Construction	16.774	22.908	19.786	22.121
ADPE	50.007	57.681	22.428	18.147
Software	0.183	11.658	50.654	79.993
Equipment	99.835	112.436	126.791	87.386
Environment	16.091	20.024	51.057	61.770
Subtotal	221.690	247.225	280.918	351.737

## Procurement Appropriations, O & M Appropriation and Other as Funding Source

	<u>FY96</u>	FY97	FY98	<u>FY99</u>
Minor Construction	10.033	6.721	4.230	4.173
ADPE	0.000	0.000	0.000	0.000
Software	0.000	0.000	0.000	0.000
Equipment	0.000	0.000	0.000	0.000
Environment	0.000	0.000	0.000	0.000
Subtotal	10.033	6.721	4.230	4.173
TOTAL	231.723	253.946	285.148	355.910

Table A-2
Army Depot Maintenance Capital Investments
(\$ in Millions)

	<u>FY96</u>	FY97	FY98	FY99
Major Construction	25.700	4.300	10.150	27.800
Minor Construction	6.822	11.300	4.022	4.557
ADPE	17.461	7.456	1.100	0.950
Software	0.133	7.908	16.100	20.014
Equipment	25.276	21.503	22.357	7.734
Environment	15.613	13.475	46.854	49.470
Subtotal	91.005	65.942	100.583	110.525

## **Procurement Appropriations, O & M Appropriation and Other as Funding Source**

	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>
Minor Construction	10.033	6.721	4.230	4.173
ADPE	0.000	0.000	0.000	0.000
Software	0.000	0.000	0.000	0.000
Equipment	0.000	0.000	0.000	0.000
Environment	0.000	0.000	0.000	0.000
Subtotal	10.033	6.721	4.230	4.173
TOTAL	101.038	72.663	104.813	114.698

Table A-3
NAVAIR Depot Maintenance Capital Investments
(\$ in Millions)

	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	FY99
Major Construction	1.300	0.000	0.000	19.570
Minor Construction	2.985	3.886	4.410	6.018
ADPE	16.351	21.483	7.155	3.325
Software	0.000	0.000	0.016	24.008
Equipment	14.437	27.396	17.602	14.542
Environment	0.478	0.585	0.879	6.185
TOTAL	35.551	53.350	30.062	73.648

The increased dollar amount in the Software development area is due to the NADEPs' role relative to computer software development and the function that the JLSC previously performed. The NADEPs are assuming these roles and the budgeting is to perform the software development function transferred from the JLSC.

The increase in the Environment area is due to the NADEPs' technology advancement in paint stripping and removal procedures. This growth is attributable to the equipment needed to initiate those procedures and other environmental compliance actions.

#### **Procurement Appropriations, O & M Appropriation and Other as Funding Source**

Data for this category was not available.

# Table A-4 NAVSEA Depot Maintenance Capital Investments (\$ in Millions)

Includes Naval Surface Warfare Center, Naval Undersea Warfare Center and NAVSEA Shipyard data.

#### MILCON, BRAC, and CPP as Funding Source

	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>
Major Construction	5.800	0.000	0.000	0.000
Minor Construction	3.026	2.466	3.292	2.024
ADPE	8.993	15.923	6.574	5.470
Software	0.050	0.061	10.338	19.871
Equipment	20.175	29.412	27.877	13.311
Environment	0.000	0.015	0.000	0.000
TOTAL	38.044	47.877	48.081	40.676

Procurement Appropriations, O & M Appropriation and Other as Funding Source

Data for this category was not available.

#### **NAVSEA Capital Investments of Note**

Regional Metal Cleaning and Plating Facility: Major Construction funding at NUWC Keyport identified in FY96 provides for a Metal Cleaning and Plating Facility for the Pacific Northwest Region. This new facility saved \$7.2M in a one-time MILCON cost avoidance, by combining all regional aluminum processing at NUWC Keyport and all regional ferrous processing at Puget Sound Naval Shipyard (PSNSY). Processes that are seldom used at either facility are being outsourced to the private sector. By specializing in the processes that are critical to each base, each facility will significantly reduce the number of waste streams, resulting in better environmental control, decreased operating costs, and reducing the number and cost of permits required.

**Battery Reclamation:** A facility will be established in FY98 at NUWC Keyport to reclaim expended mine and target batteries. CPP funding to establish this facility has been identified under Minor Construction for FY98. Reclaiming batteries will significantly reduce the waste stream by reclaiming the heavy metals contained in the expended batteries. The reclaimed silver alone from target batteries could provide a cost avoidance/savings of approximately \$500K per year to the MK 30 Target program.

Table A-5
SPAWAR Depot Maintenance Capital Investments
(\$ in Millions)

	<u>FY96</u>	FY97	FY98	FY99
Major Construction	0.000	3.538	0.052	0.000
Minor Construction	0.000	0.195	0.515	0.000
ADPE	0.000	0.000	0.000	0.000
Software	0.000	0.000	0.000	0.000
Equipment	0.000	0.000	0.000	0.000
Environment	0.000	0.000	0.000	0.000
TOTAL	0.000	3.733	0.567	0.000

Procurement Appropriations, O & M Appropriation and Other as Funding Source SPAWAR had no capital investments from this category.

Table A-6
Air Force Depot Maintenance Capital Investments
(\$ in Millions)

	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>
Major Construction	6.000	14.680	0.000	18.050
Minor Construction	2.788	3.455	5.444	8.200
ADPE	7.202	12.819	6.900	6.600
Software	0.000	3.689	24.200	16.100
Equipment	36.566	31.479	56.962	48.985
Environment	0.000	5.949	3.324	6.115
TOTAL	52.556	72.071	96.830	104.050

The Environment area above for the Air Force represents the amount of funding in the Equipment CPP that is used to support environmental efforts. The funding is actually part of the Equipment CPP.

#### Procurement Appropriations, O & M Appropriation and Other as Funding Source

Data for this category was not available.

#### **AFMC Capital Investments of Note**

In FY97, \$2.889M of CPP funds were used for BRAC requirements for the C-5 Mobile Tail Enclosures. \$3.415M of CPP funds were used for BRAC requirements in FY98 for the C-5 Mobile Tail Enclosures. \$180K is required in FY98 under Minor Construction to transition the software operational flight program and electronic warfare software workloads from SM-ALC to OO-ALC. \$267K is required in FY98 under Minor Construction for two cryogenic spin pits to transition the workload from SA-ALC to OC-ALC. \$11.824M is required in FY98 under Equipment to transition the F100 engine overhaul workload from SA-ALC to OC-ALC. \$4.5M is required in FY99 at OO-ALC to construct 19 engine test cells for accommodating the gas turbine engine workload from SA-ALC to OO-ALC. \$1.3M is required in FY99 to provide an addition to the Fuel/Air Facility (Bldg. 210) for six additional hot air/fuel test cells necessary for accommodating fuel components workload at OC-ALC. \$350K is required in FY99 for air heaters in the air/fuel test cells to transition the fuel component workload from SA-ALC to OC-ALC.

Table A-7
Marine Corps Depot Maintenance Capital Investments
(\$ in Millions)

	FY96	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>
Major Construction	0.000	0.000	0.000	16.900
Minor Construction	1.153	1.606	2.103	1.322
ADPE	0.000	0.000	0.699	1.802
Software	0.000	0.000	0.000	0.000
Equipment	2.428	1.805	1.482	2.084
Environment	0.000	0.000	0.000	0.000
TOTAL	3.581	3.411	4.284	22.108

#### Procurement Appropriations, O & M Appropriation and Other as Funding Source

The Marine Corps had no capital investments from this category.

#### **Marine Corps Capital Investments of Note**

The Marine Corps, in conjunction with the Environmental Protection Agency Research Park, NC; Penn State University Applied Research Labs; and private industry, was awarded a funded project under the Strategic Environmental Research and Development Program (SERDP). This program studied the destruction effects generated by UV light, ozonated water, and regenerable carbon on reducing VOC emissions in paint booth operations. The Marine Corps purchased VOC destruct technology for installation at the Barstow Maintenance Center under the capital investment strategies to support SERDP. The Marine Corps is in full compliance with the state of California's clean air restrictions associated with the Maintenance Center, has lower energy requirements, and lower long-term system maintenance costs. In the past year, Barstow has received several DoN and DoD "Exemplar Awards" which were significantly attributed to the Marine Corps' R&D projects. These projects have received national recognition.

The Marine Corps is also making significant investments in funds and manpower to implement state-of-the-art Management Information Systems (MIS) as part of the JLSC efforts. A major system for implementation is Manufacturing Resources Planning II. Once fully operational, the Maintenance Centers' remanufacturing operations will be significantly more effective and efficient. The process improvements include reduced

inventories through improved planning and tracking, reduced labor through better resource and work planning, shorter cycle times through improved management information to control operations, and improved schedule performance through more complete asset visibility. Specifically, the MIS will provide the Maintenance Centers the capability to define, establish, and implement meaningful measures of effectiveness; provide the ability to access real-time information, allowing changes in the production schedule to be made easily with minimum disruption; alert management of potential bottlenecks in cost centers; provide capability to track workload; and provide historical files to use the analyzing job performance with audit trail visibility.

Other significant capital investment projects the Marine Corps is implementing are the Automatic Laser Test System and the Electro Optics Test Station. The Maintenance Center Barstow is installing the Automatic Laser Test System that will enhance their capability to operationally check, test, and repair laser systems. The Electro Optics Test Station will provide support for the Forward Looking InfraRed Systems. This Test Station will provide the implementation to provide the necessary repair, testing, and measurement requirements.

Table A-8
DLA Depot Maintenance Capital Investments
(\$ in Millions)

	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	FY99
Major Construction	0.000	0.000	0.000	0.000
Minor Construction	0.000	0.000	0.000	0.000
ADPE	0.000	0.000	0.000	0.000
Software	0.000	0.000	0.000	0.000
Equipment	0.953	0.841	0.511	0.730
Environment	0.000	0.000	0.000	0.000
TOTAL	0.953	0.841	0.511	0.730

**Procurement Appropriations, O & M Appropriation and Other as Funding Source** 

DLA had no capital investments from this category.